CHIAYO

smart 300

C H I A Y O

Mini Wireless Portable Amplifier System

Operation manual

ISO 9001

ISO 14001

OHSAS 18001

GREEN PRODUCT

TAIWAN EXCELLENCE

TAIWAN GOOD DESIGN

Please read and follow the instructions in this manual thoroughly to obtain optimum results from this unit. We also recommend that you keep this manual handy for future reference.

Safety Precautions

- Be sure to read the instructions in this section carefully before use.
- Make sure to observe the instructions in this manual as the conventions of safety symbols and messages regarded as very important precautions are included.

Safety symbols and messages described below are used in this manual to prevent bodily injury and property damage which could result from mishandling. Before operating your product, read this manual first and understand the safety symbols and messages so you are thoroughly aware of the potential safety hazards.

⚠ **WARNING**	Indicates a potentially hazardous situation which, if mishandled, could result in death or serious personal injury.
⚠ **CAUTION**	Indicates a potentially hazardous situation which, if mishandled, could result in moderate or minor personal injury, and/or property damage.

Make sure to observe the following handling precautions so that a fire or personal injury does not result from leakage or explosion of the battery.

- Do not short, disassemble, heat or put the battery into a fire.
- Never charge batteries of the type which are not rechargeable.
- Do not solder a battery directly.
- Be sure to use the specified type of battery.
- Note the correct polarity when inserting a battery in the unit.
- Avoid locations exposed to the direct sunlight, high temperature and high humidity when storing batteries.

⚠ **WARNING**	To prevent the electromagnetic wave from badly influencing medical equipment, make sure to switch off the unit's power when placing it in close proximity to the medical equipment.

⚠ **CAUTION**	Battery discharge naturally according to a certain pattern even not in use. For best performance and a prolonged lifespan, battery **should** be charged regularly after every use or every month when the system is in storage and not being used!

Congratulation and thank you for the purchase of this all-in-one ultra compact portable sound system. To ensure a trouble-free operation, please read this manual thoroughly to fully understand its controls and functions.

Configuration

All versions of SMART 300 series comes equipped with the following :

1. 1.A switch mode power supply.
2. One wireless transmitter, either handheld or bodypack transmitter. (except version with no wireless receiver module built-in)

Optional accessories

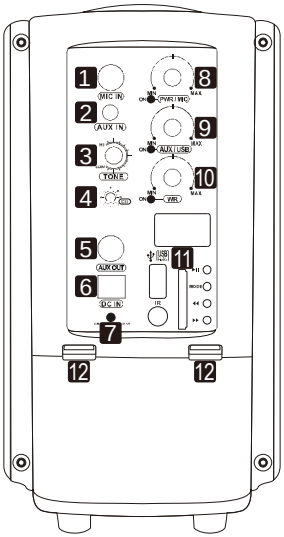
1. Carrying bag.
2. Tripod stand.
3. Wall mount bracket.
4. Wired microphone.

Remark

Manufacturer reserves the rights to change the above combinations without prior notice.

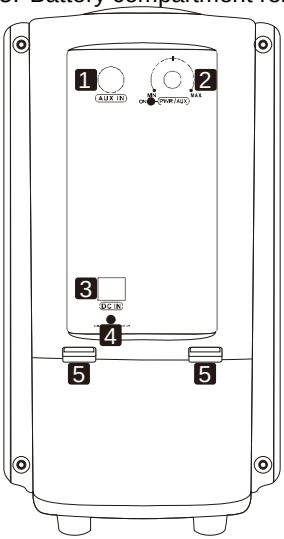
SMART 300 Speaker

1. Mic input
2. Aux input
3. Tone control
4. WR channel selector (optional)
5. Aux output
6. DC input
7. Power/battery status/charging indicator
8. Power/mic volume control
9. Aux/USB/SD volume control
10. Wireless microphone volume control (optional)
11. USB/SD LCD digital player (optional)
12. Battery compartment release



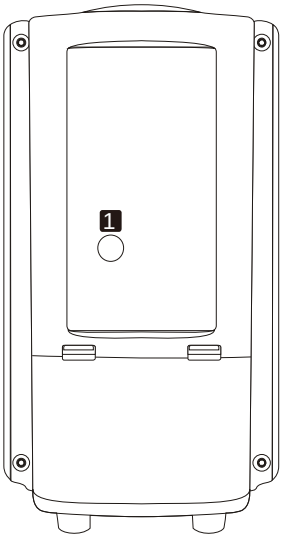
SMART 300 Active Speaker

1. Aux input
2. Power/Aux volume control
3. DC input
4. Charging/battery indicator
5. Battery compartment release



SMART 300 Passive Speaker

1. Aux input



Recharge the battery before first use
After unpacking the unit for the first time, please recharge the unit for about 4~5 hours before operation. This is absolutely necessary as the built-in rechargeable battery might have been discharged naturally due to long shipment and storage time, even though it had been fully charged in the factory prior to shipment.

To charge the battery, just plug in the DC end of the switch mode power supply into the DC IN of the unit and charging will start automatically. During the charging process, the charging indicator LED will flash GREEN. When this LED turns GREEN, this battery is then fully charged.

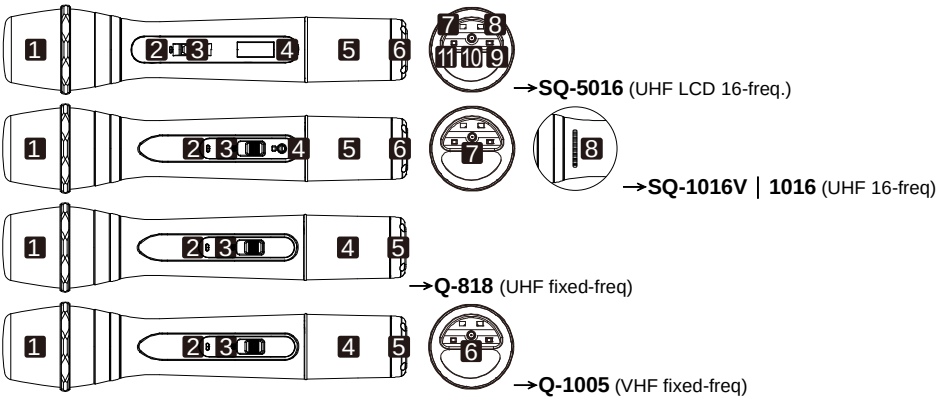
Operating procedures
To operate this portable sound unit, switch on the main POWER switch, which will be GREEN. If it turns RED, its battery power might be too low and recharging is necessary. The main power switch does not switch on the wireless microphone and USB/SD digital player as each of them has an individual Power / Volume control.

Operating the built-in wireless microphone
On the control panel, there is one power/volume control knob for the built-in wireless receiver, which is indicated by WR.

To use the wireless microphone, first switch on the main power, then switch on the WR power/volume control, and its nearby led will glow. Turn on its matched transmitter. Adjust the volume till the amplified sound could be heard when speaking to the transmitter.

Operating the wired microphone
There is a MIC IN jack with dedicated volume control for this portable sound unit. To use a wired microphone, just plug the end with a phone jack plug into MIC IN. Switch on the Power/volume control knob (PWR/MIC) and rotate it to adjust the volume.

UHF handheld transmitters（SQ-5016｜SQ-1016V｜SQ-1016｜Q-818｜Q-1005）



Transmitter parts and functions	SQ-5016	SQ-1016V	SQ-1016	Q-818	Q-1005
Cartridge	1	1	1	1	1
Battery weak/power LED	2	2	2	2	2
Power switch	3	3	3	3	3
Channel switch	-	4	4	-	-
Volume control	-	8	-	-	-
LCD	4	-	-	-	-
Battery compartment	5	5	5	4	4
Bottom cap	6	6	6	5	5
Locking button	7	-	-	-	-
Audio mute switch	-	-	-	-	-
Setting button	8	-	-	-	-
Up button	9	-	-	-	-
Down button	11	-	-	-	-
Charging port	10	7	7	-	6

Battery installation & indicator

This transmitter requires 2 x AA batteries to operate.

To install, remove the battery cover and slide the batteries into the battery compartment & replace the battery cover.

Note: Batteries contain a corrosive acid that may leak and damage the transmitter when stored for a long period. Batteries should be removed from the transmitter before storing without use for more than 4 weeks.

When the transmitter is switched ON, a red LED ② will blink once to indicate the batteries installed are in good condition. **If the LED remains illuminated the batteries have expired and require replacement.**

CHANNEL setting (SQ-1016V | 1016)
Please use the attached small screw driver to set the channel.

VOLUME adjusting (SQ-1016V)
Please slide the wheel ⑧ to adjust the volume.

Other settings (SQ-5016)
1. Channel setting

Use UP or DOWN button to go to the CHANNEL | FREQUENCY page.

The cursor will flash to allow changes to be made. Pressing UP or DOWN button will increase or decrease the channel number. The corresponding frequency will change accordingly. When a desired channel is selected, it will be automatically saved and stored in the memory.

2. Battery type setting

Use UP or DOWN button to go to the Battery selection page.

Press UP or DOWN button to move the cursor to either NiMH (rechargeable battery) or AKLN (Alkaline battery) position.
When a battery type has been selected, it will be automatically saved and stored in the memory.

Remark: **NiMH** battery must be selected when rechargeable battery is being used. Never select **AKLN** (alkaline) when transmitter is intended for charging as alkaline battery isn't rechargeable. Wrong battery selection will result in battery sensing electronics to display wrong and misleading status information.

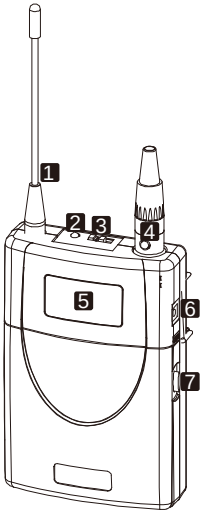
3. Sensitivity level setting

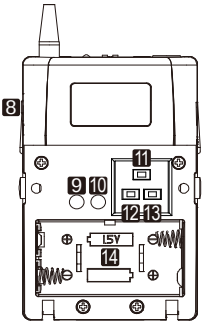
Use UP or DOWN button to go to the SENS SET page.

Press UP or DOWN button to increase or decrease the Sensitivity Level of the transmitter.
The MAX level is 4 and the MIN level is 1.When a desired sensitivity level has been selected for your application, it will be automatically saved and stored in the Memory.
Remark: When selecting Sensitivity level, please bear in mind that Level 1 is for close proximity singing purposes whereas Level 4 is for use of transmitter on tripod mount for speech purposes. When Level 4 setting is used for close proximity singing, high SPL input will result in undesirable distortion in the output.
After performing setting changes, you could turn the protective cover 180° in either direction to block the buttons from being accidentally adjusted.

UHF belt-pack transmitters（SM-5016｜SM-1016｜M-815｜M-1005）

Parts and functions





Transmitter parts and functions	SM-5016	SM-1016	M-818	M-1005
Antenna	1	1	1	-
Battery weak/audio mute indicator	2	2	2	2
Power switch	8	3	3	3
(Lavalier microphone) Mini XLR connector	4	4	4	4
Audio mute switch	3	-	-	-
LCD	5	-	-	-
Charging port	6	-	-	-
Cover release button	7	7	7	7
Charging contacts	15	15	15	15
Setting button	11	-	-	-
Up button	12	-	-	-
Down button	13	-	-	-
Channel switch	-	11	-	-
Gain control (GT, high impedance)	9	12	12	12
Gain control (MT, low impedance)	10	13	13	13
Battery compartment	14	14	14	14

Battery installation & indicator

This belt-pack requires 2 x AA batteries to operate.
To install, open the battery cover using the cover release buttons and insert the batteries into the battery compartment.
Note: Batteries contain a corrosive acid that may leak and damage the belt-pack when stored for a long period. Batteries should be removed from the belt-pack before storing without use for more than 4 weeks.

When the transmitter is switched ON, the battery power LED (red) will blink once to indicate the batteries installed are in good condition. **If the LED remains illuminated the batteries have expired and require replacement.**

CHANNEL and GAIN setting (SM-1016 | M-818 | M-1005)

Please use the attached small screw driver to set the channel.
Gain control is an adjustable design that enables user to set different output levels. GT is for the use of instrument with high impedance, such as guitar while MT is for the use of low impedance such as lavalier or headset microphone.

Other settings (SM-5016)

1. Channel setting

Use UP or DOWN button to go to the CHANNEL/ FREQUENCY page.

The cursor will flash to allow changes to be made. Pressing UP or DOWN button will increase or decrease the channel number. The corresponding frequency will change accordingly. When a channel is selected, it will be automatically saved and stored in the memory.

2. Battery type setting

Use UP or DOWN button to go to the Battery selection page.

Press UP or DOWN button to move the cursor to either NiMH (rechargeable battery) or AKLN (Alkaline battery) position.
When a battery type has been selected, it will be automatically saved and stored in the memory.

Remark: **NiMH** battery must be selected when rechargeable battery is being used. Never select **AKLN** (alkaline) when transmitter is intended for charging as alkaline battery isn't rechargeable. Wrong battery selection will result in battery sensing electronics to display wrong and misleading status information.

Maintenance-free Lead Acid battery

Guidelines for maintenance-free Batteries:

1. Battery should operate at temperatures between 15°C ~ 50°C. To ensure a longer life span, it should be kept between 5°C ~ 35°C. For optimum result, 20°C ~ 25°C will be ideal. When temperature falls 15 degrees below zero, battery will undergo some changes in its chemical contents and therefore cannot be recharged. Operating the battery at higher temperature will result in higher capacity but shorter lifespan, whereas lower temperatures operation has a longer lifespan but less capacity.
2. **If the battery is not recharged 72 hrs after it is completely used, it will be permanently damaged.**
3. When the battery is being charged, the internal gases will be electrolyzed into water at the negative charge, maintaining the battery's storage abilities with no water added. However, erosion at the charged ends of the battery will cause poor performance.
4. The battery's cycle lifespan (no. of charge and discharge cycle) is determined by the degree at which power is dissipated, especially the degree of discharged each time it is used and the recovery charging method. For normal use, the battery can be used for longer hours when less power is dissipated each time and vice versa. At 25°C, maintenance-free batteries could be charged 150 ~ 200 times at 100% discharge each time.
5. Decrease in capacity, internal short circuit, deformation in appearance, erosion of charged ends and decrease in open circuit voltage are symbols indicating battery is approaching the end of its life cycle.
6. When two batteries are used in parallel connection, the resistance of the cables should be kept equal.

Properties of the Lead Acid Battery:

1. Has no memory effect. Can be charged anytime, even when the recharge indication light is off.
2. Performance and efficiency are affected by changes in the environment, especially temperature and humidity. (Best operated between 20°C ~ 25°C)
3. Battery discharge naturally according to a certain pattern even not in use. **For best performance and a prolonged lifespan, it should be recharged every month even when not in use.**
4. Under normal circumstances, battery could last for about a year.
5. When the battery's life expires, possible indicators include internal short-circuit, decrease in capacity, deformation in appearance, erosion of charged ends and decrease in operating voltage.

User's Precautions:

1. **For first-time use, charge the battery for 10 hrs until it is fully charged.**
2. To maintain performance and lifespan, if product has not been used for 3 months after the initial shipment, please fully charge the battery.
3. **Before each use, it's advisable to charge the battery to its full capacity.**
4. The average lifespan of the battery is one year. The user is advised to change the battery after one year of use.
5. The current consumption is in direct ratio with load current. The more current consumption, the less the operation time.
6. **Warranty will be void if the battery is not charged for a prolong period as it may lose all its charge and could never be recovered again.**

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